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# SCIENCE

A WEEKLY JOURNAL DEVOTED TO THE ADVANCEMENT OF SCIENCE, PUBLISHING THE  
OFFICIAL NOTICES AND PROCEEDINGS OF THE AMERICAN ASSOCIATION  
FOR THE ADVANCEMENT OF SCIENCE.

FRIDAY, SEPTEMBER 1, 1905.

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## ADDRESS BY THE PRESIDENT OF THE BRITISH ASSOCIATION FOR THE AD- VANCEMENT OF SCIENCE.<sup>1</sup>

### II.

AT Cape Town I attempted to make a general survey of evolution in its various branches, and laid down certain general propositions as to what seems common to all of them.

I then went on to consider how these general laws found an application in the most recent speculations as to the constitution of matter. The atoms of the elements and the molecules of chemical combinations are constructed on so minute a scale that it is no easy task to picture them to our minds. On the other hand, we see in the heavens arrangements of matter on a scale so vast that it is equally difficult to grasp. Both the inconceivably small and the inconceivably large should fall under a general law, if it is a true one; and the history of satellites, planets and stars presents at least as great an interest as that of atoms and molecules. Accordingly the transition from the small to the large seemed to afford a convenient halting place in my address, and I propose to-night to resume the discussion by considering various theories of celestial evolution. But I will first try to render the point of view intelligible which I desire to take. A short preliminary explanation for those who were not at Cape Town thus becomes necessary.

I desire to present the essential features which are common to evolution in all its branches, and this may be done most easily

<sup>1</sup>Johannesburg, South Africa, August 30, 1905.

circumstances, it may scarcely be regarded with well-founded hopes of realization—there is undoubtedly no more worthy single service to be rendered students in systematic pteridology than the publication of precisely such a work as Christensen has undertaken in his 'Index Filicum.' The need of the work is undeniable; the parts already published are of high worth; the manuscript of the remainder is ready for the printer; and we can only express our hope that the necessary support shall be given—and at once—to insure the issuance of the remaining parts.

WILLIAM R. MAXON.

U. S. NATIONAL MUSEUM,  
August 15, 1905.

#### SCIENTIFIC JOURNALS AND ARTICLES.

THE August number of *The Physical Review* contains the following articles:

A. DE FOREST PALMER: 'Thermo-electric Determination of Temperatures 0° and 200° C.'

LOUIS BEVIER, JR.: 'The Vowel A° (as in Raw), O (as in Rope), U (as in Rude).'

WM. J. RAYMOND: 'The Measurement of Inductance and Capacity by Means of the Differential Ballistic Galvanometer.'

J. B. WHITEHEAD: 'The Magnetic Effect of Electric Displacement.'

E. R. DREW: 'The Infra-red Spectrum of CO<sub>2</sub> and Nitrogen.'

THE contents of *The American Naturalist* for August are as follows:

PROFESSOR D. P. PENHALLOW: 'A Systematic Study of the Salicaceæ.'

J. A. CUSHMAN: 'Developmental Stages in the Lagenidæ.'

DR. B. M. DAVIS: 'Studies on the Plant Cell.'—VII.

Notes and Literature: Nature Study; Zoology, Wasps Social and Solitary, Trouessart's Catalogue Mammalium, Supplement.

#### SOCIETIES AND ACADEMIES.

##### ORGANIZATION OF A NATIONAL SOCIETY OF TEACHERS OF MATHEMATICS AND SCIENCE.

A CONFERENCE was held at Asbury Park on July 5, 1905, for the purpose of discussing the advisability of organizing a national society of teachers of mathematics and natural science. The conference was attended by thirty-seven

teachers representing nearly all the larger associations of teachers of mathematics and natural science in the United States. Many letters received from teachers who were unable to be present expressed sympathy with the proposed movement.

Professor Thomas S. Fiske, of Columbia University, was elected chairman of the conference and Dr. Arthur Schultze, of the High School of Commerce of New York, was elected secretary.

There was absolute agreement in regard to the advisability of forming closer permanent relations among the associations represented, and a large majority were in favor of effecting this by means of a national association. Considerable discussion, however, arose as to whether the new society should be one of mathematical teachers only or one including also teachers of science. The western associations, for the most part including teachers of science as well as teachers of mathematics, strongly advocated a mixed organization, while the teachers from the eastern states seemed, to a considerable extent, to favor a purely mathematical society. The views urged by the western delegates prevailed, and on motion of Professor E. R. Hedrick, of the University of Missouri, a resolution was adopted to the effect that a national society of teachers of mathematics and science be organized.

The details of the organization were referred to the following executive committee: Professor Thomas S. Fiske (chairman), New York, N. Y.; Professor C. E. Comstock, Peoria, Ill.; Professor E. R. Hedrick, Columbia, Mo.; Mr. Franklin T. Jones, Cleveland, O.; Professor William H. Metzler, Syracuse, N. Y.; Mr. Edgar H. Nichols, Cambridge, Mass.

Up to the next meeting this committee is to act as council of the society and a report of its proceedings is to be published in *School Science and Mathematics*.

In the following list of associations represented at the conference the names of regularly appointed delegates are distinguished by the letter (D).

*New England Mathematics Teachers Asso-*